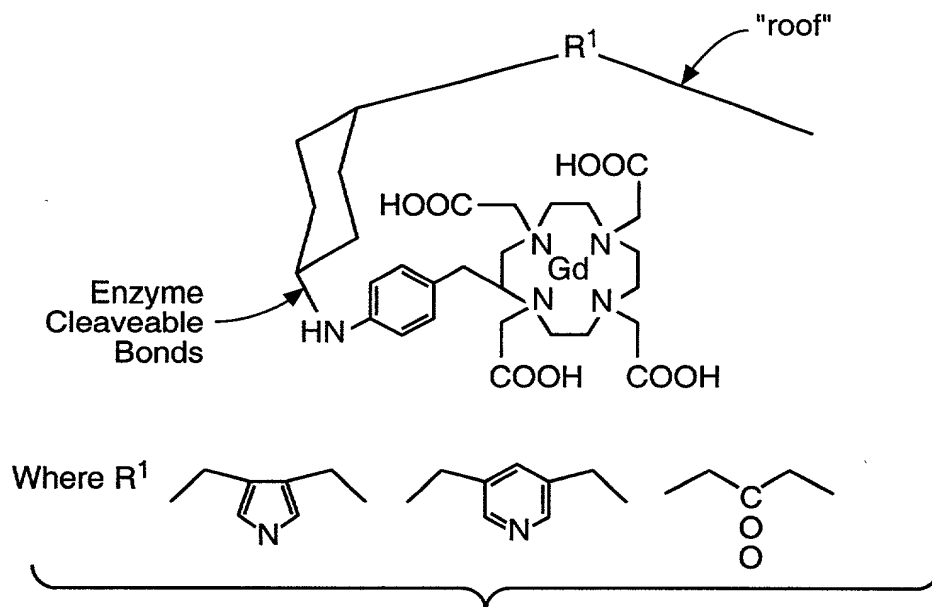
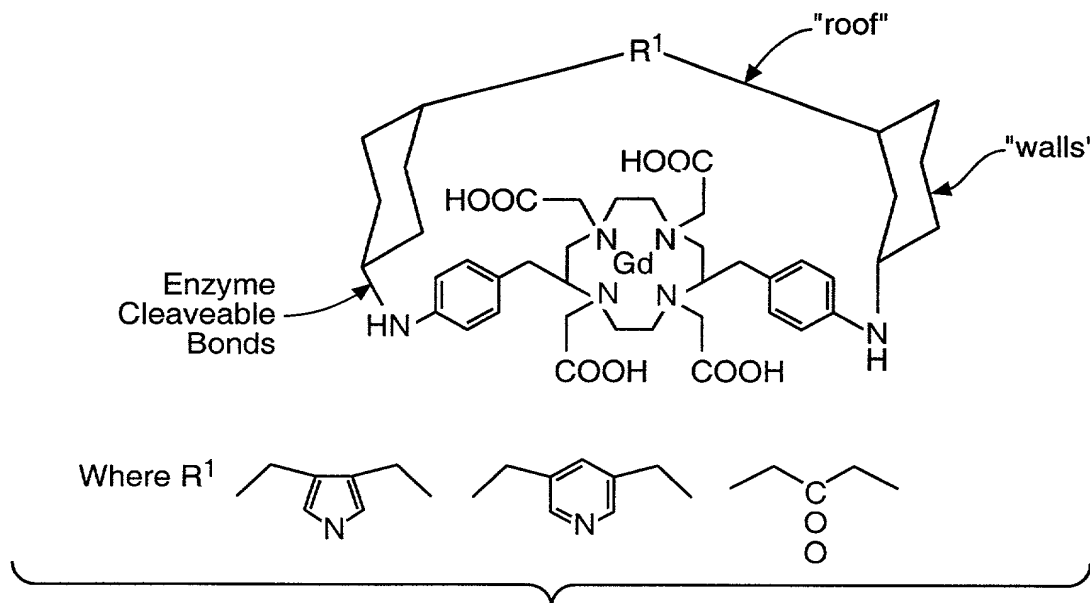


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**FIG._1****FIG._2**

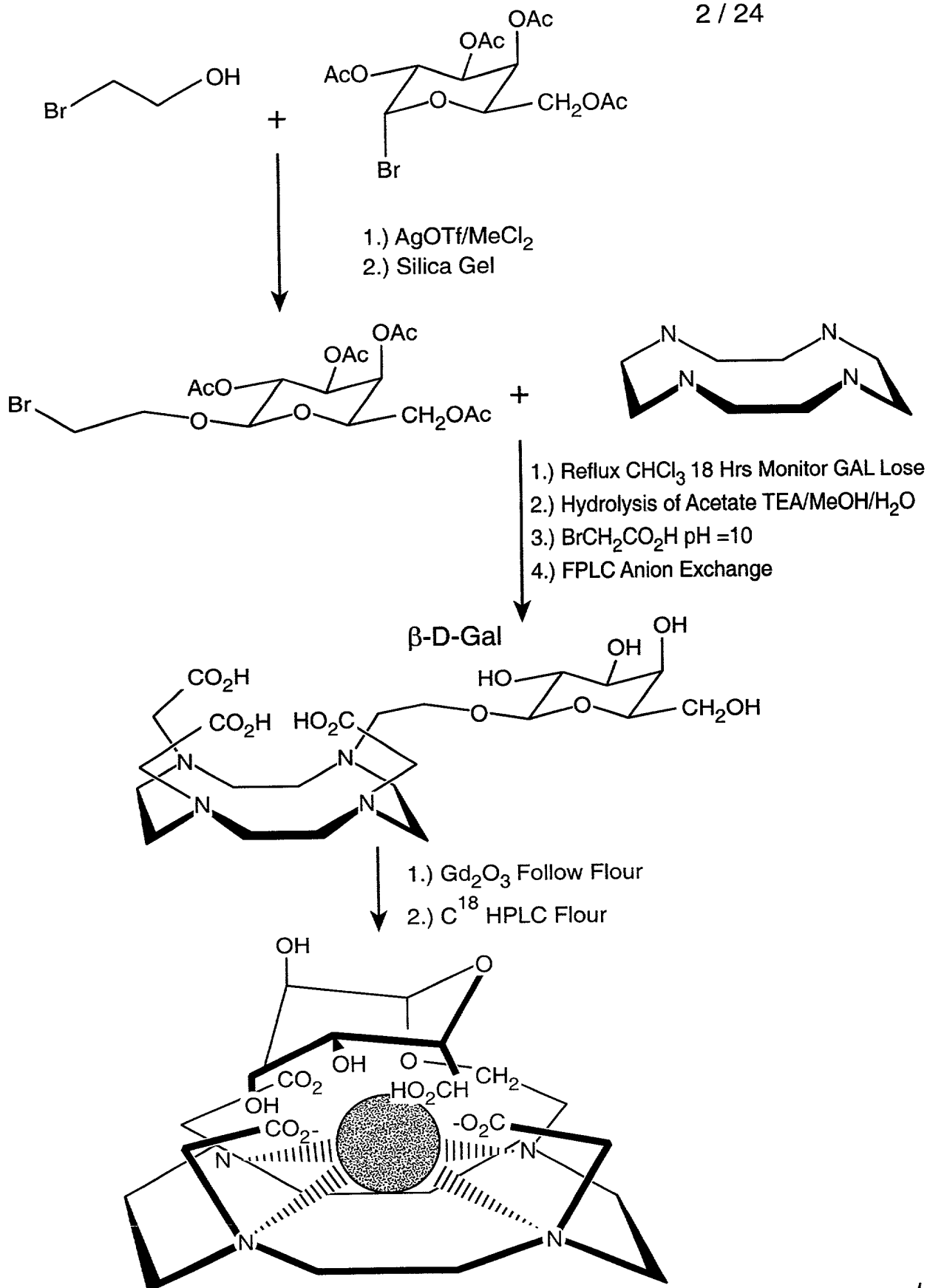
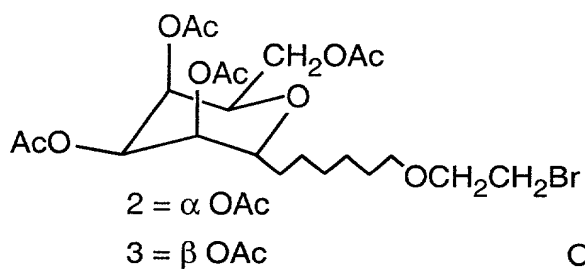


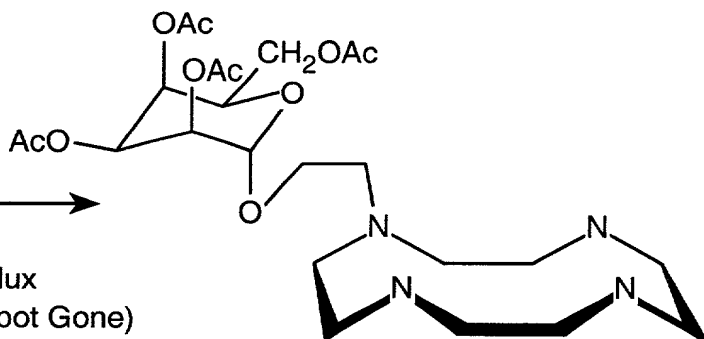
FIG._3

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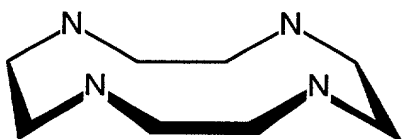


1 + 2

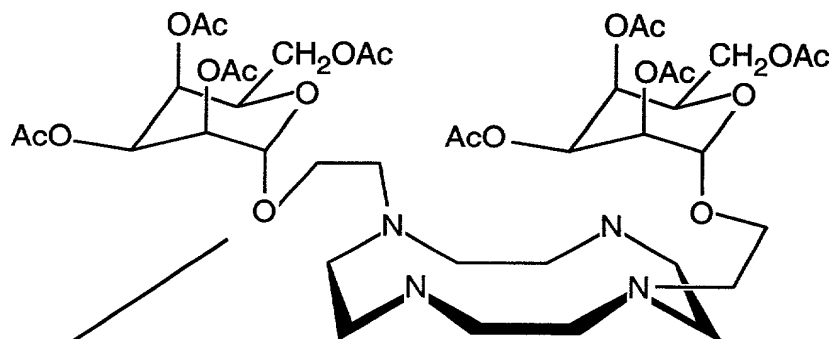
CHCl₃
48 Hrs Reflux
T.L.C. (2 Spot Gone)



5 12 = α OH
(7 = β) 13 = β OH



1



~2:1 6:5

Silica
4:1 CHCl₃/MeOH

6
(8 = β)

8

- 1.) Hydrolysis Of Acetate
TCA/MeOH / H₂O
- 2.) BrCH₂CO₂H pH = 10
- 3.) FPLC Cation Exchange
pH = 2 Acetic Acid Gradient

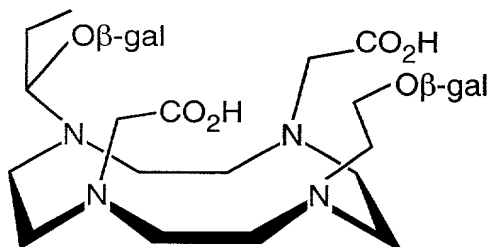
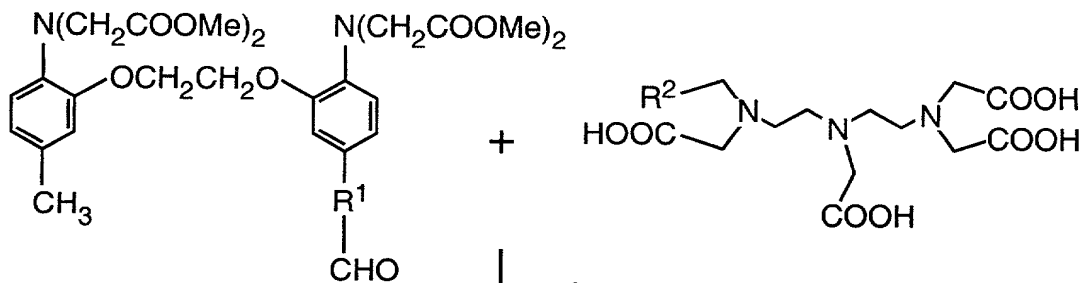


FIG. 4

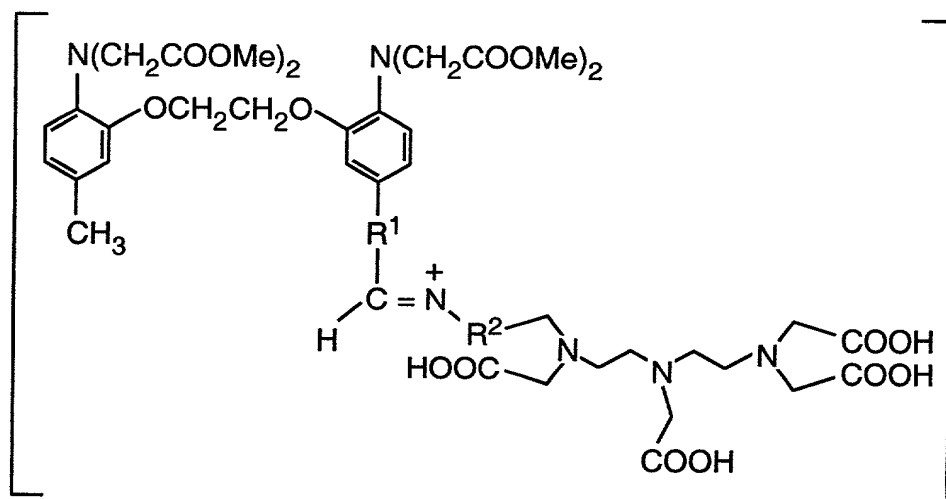




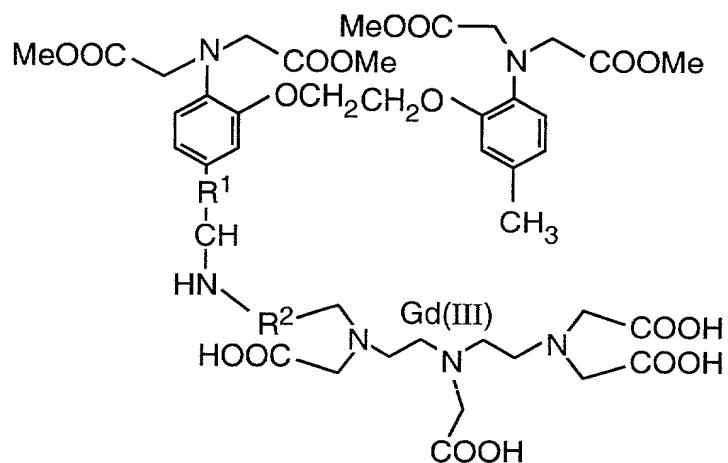
6 / 24



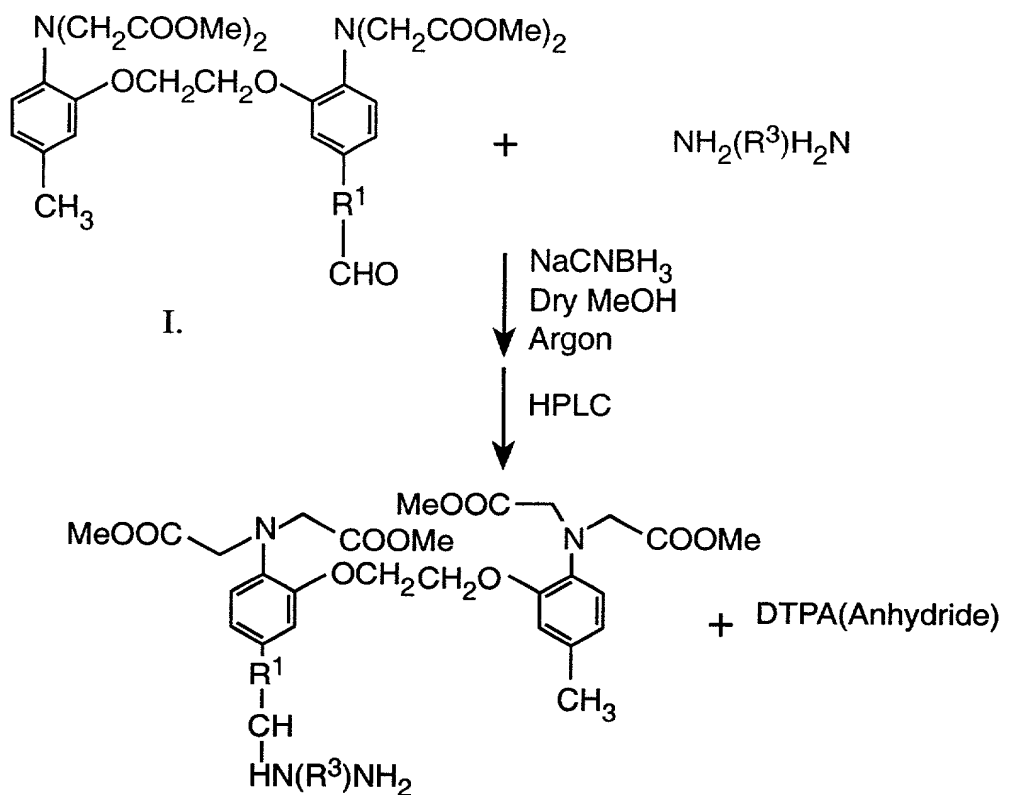
$$\text{R}^2 = \text{NH}_2(\text{R})\text{NCO}$$

$$\text{NaCNBH}_3$$


Rearrangement
 HPLC
 Gd(III)


FIG. 7

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HPLC
 Gd(III)
 Remove Protecting Groups

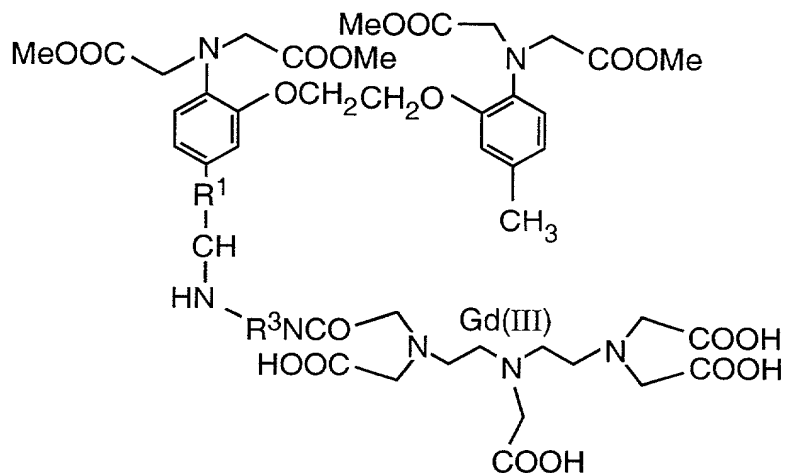
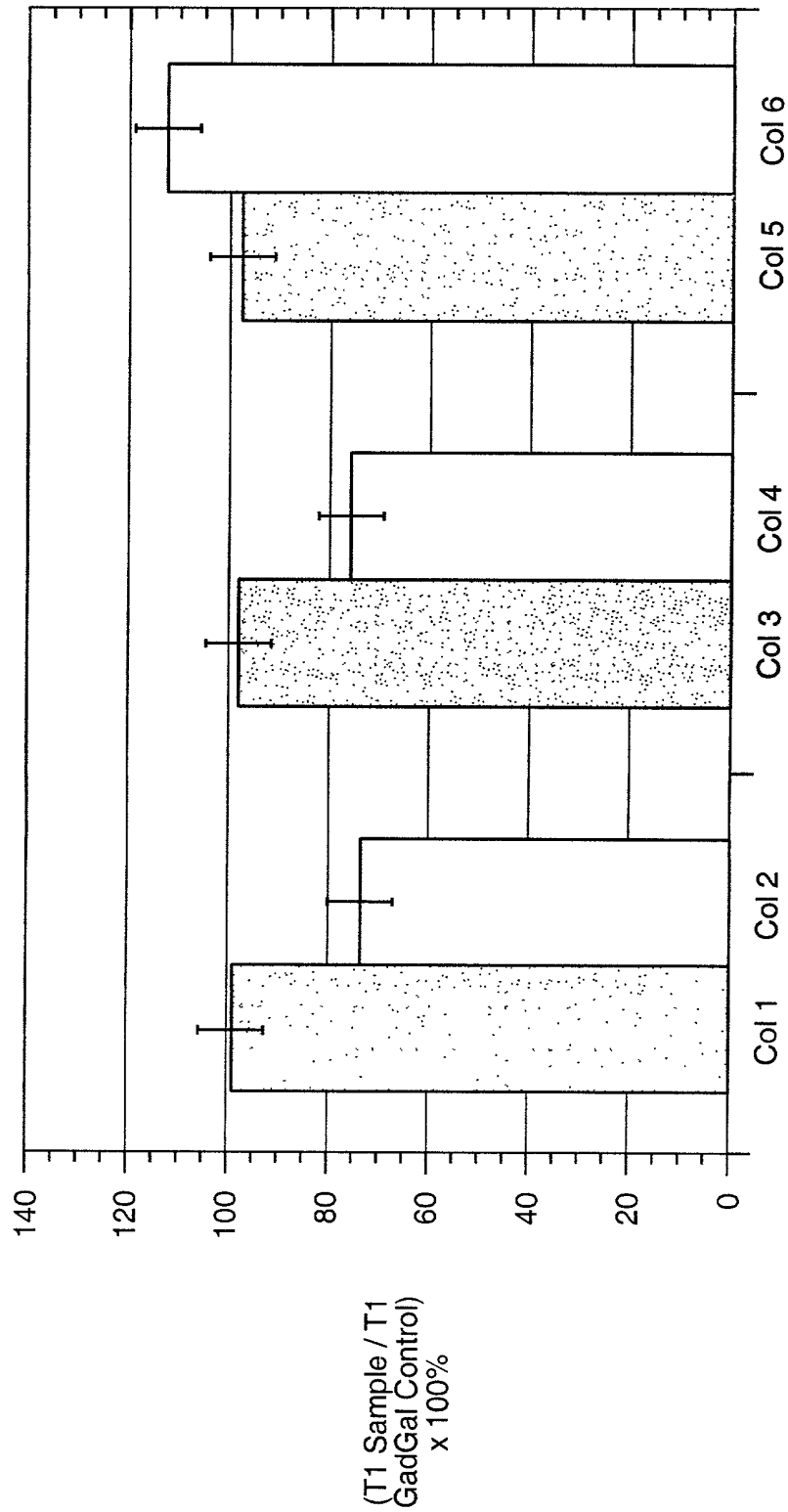
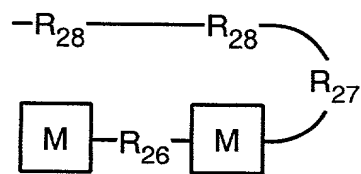
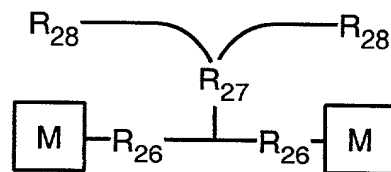
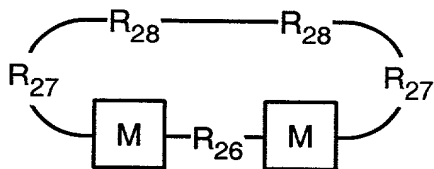
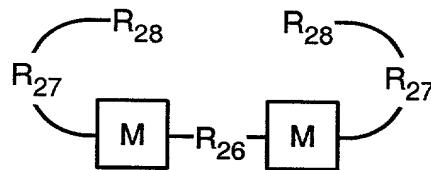
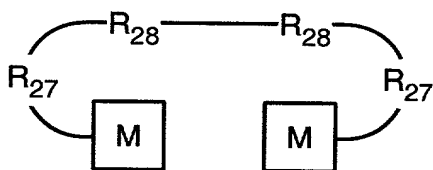
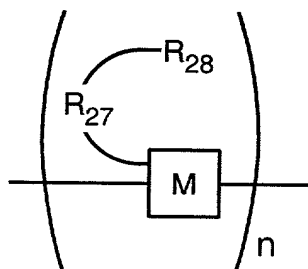
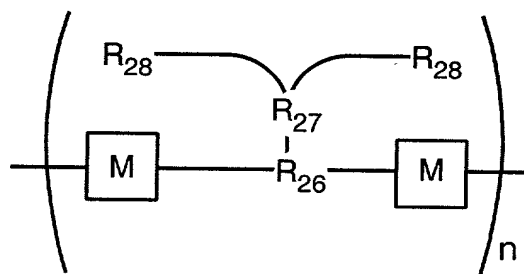
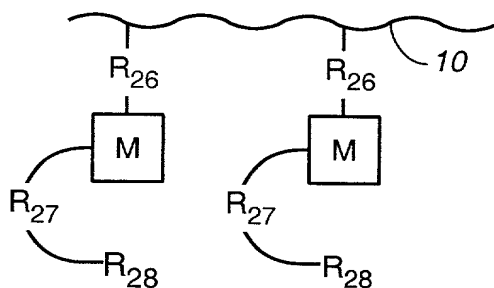
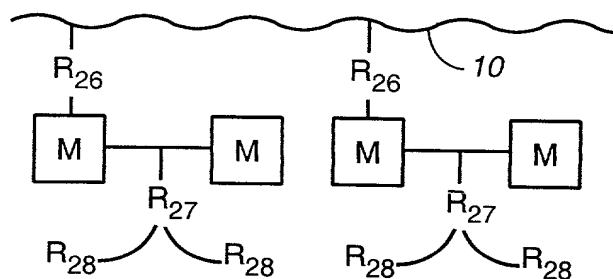


FIG. 8

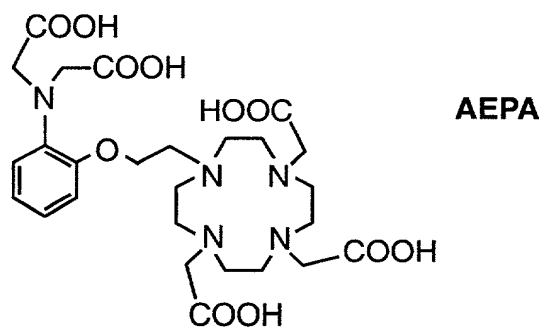
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**FIG. 9**

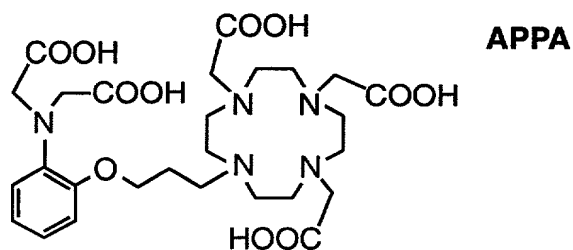
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**FIG. 10A****FIG. 10B****FIG. 10C****FIG. 10D****FIG. 10E****FIG. 10F****FIG. 10G****FIG. 10H****FIG. 10I**

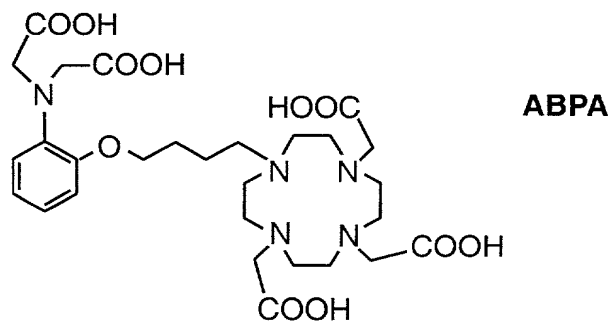
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1-o-aminophenoxy-2-(cyclen)ethane-N,N,N',N'',N'''-pentaacetic acid

FIG._11A

1-o-aminophenoxy-3-(cyclen)propane-N,N,N',N'',N'''-pentaacetic acid

FIG._11B

1-o-aminophenoxy-4-(cyclen)butane-N,N,N',N'',N'''-pentaacetic acid

FIG._11C

Accepted for publication

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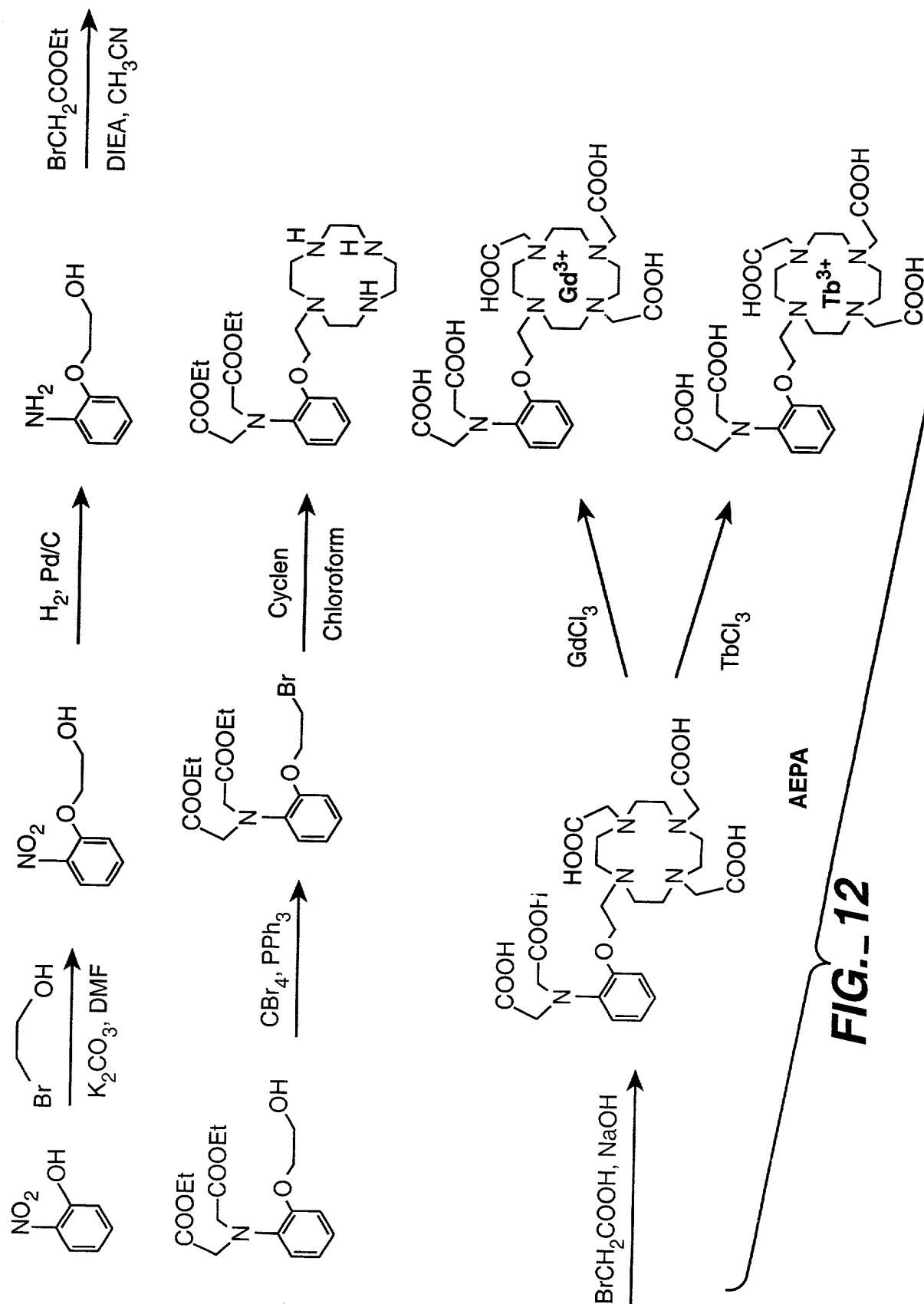
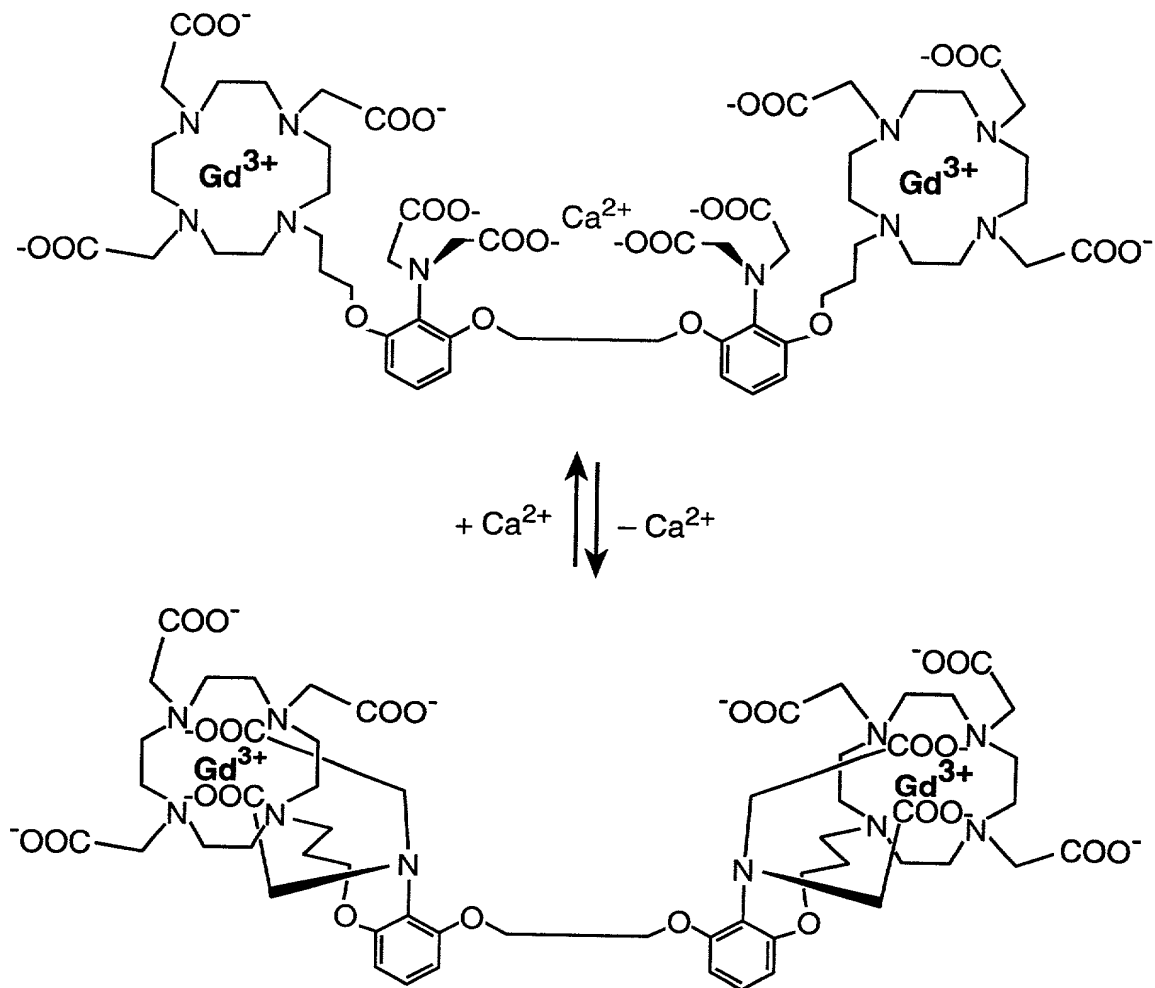
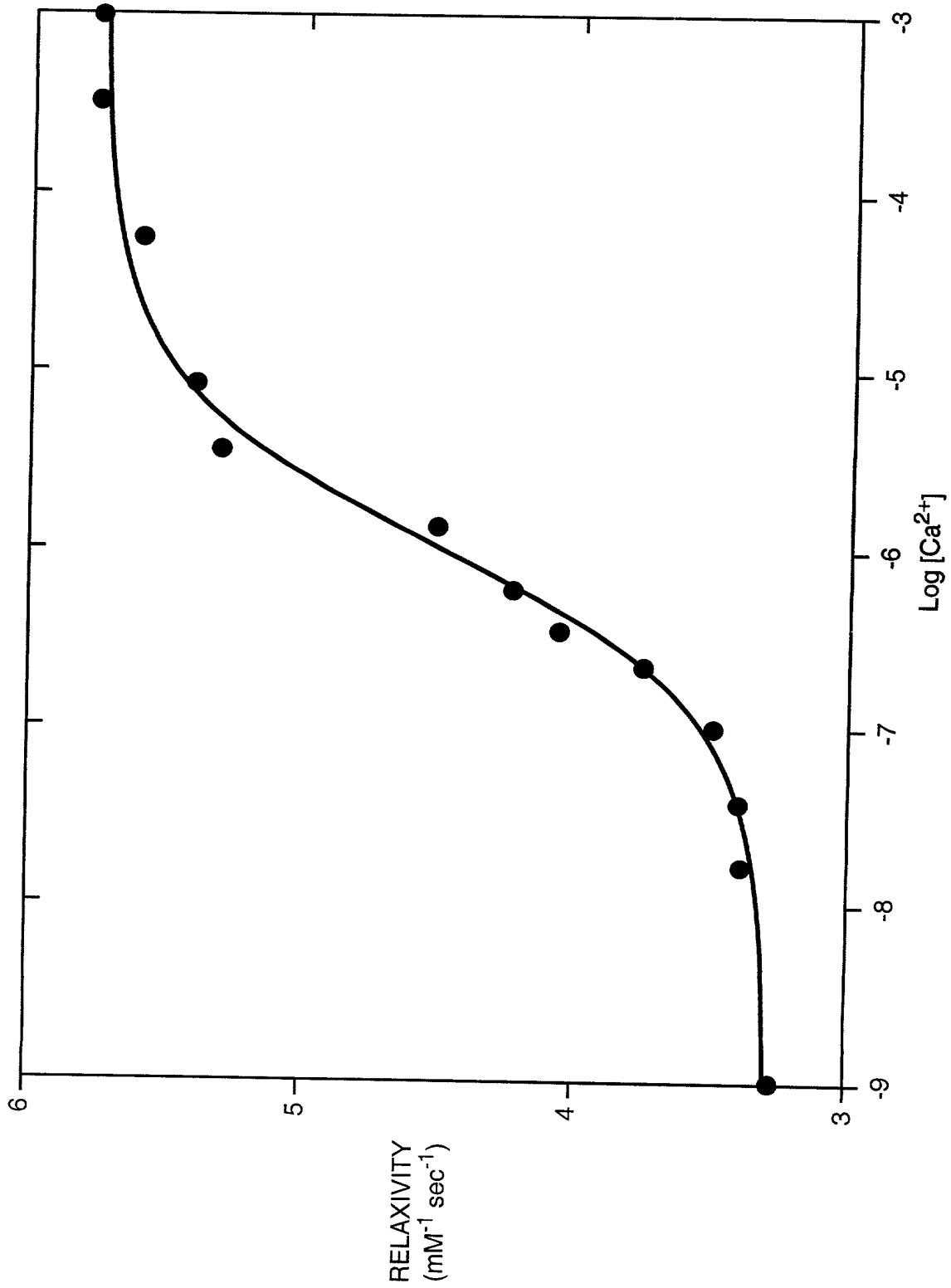


FIG. 12



**FIG. 15**

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**FIG. 16**

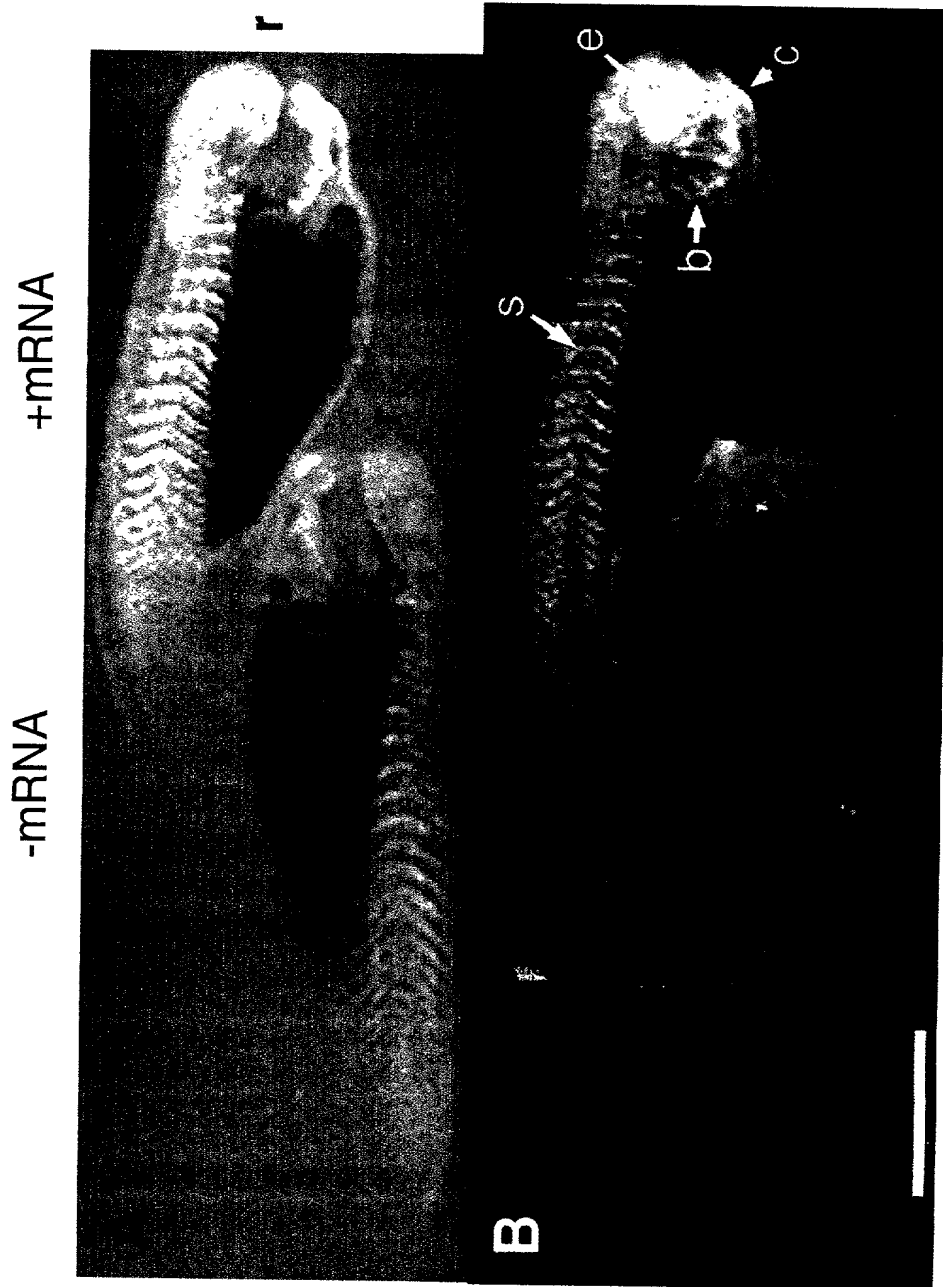


FIG. 17

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FIG._18A



FIG._18B

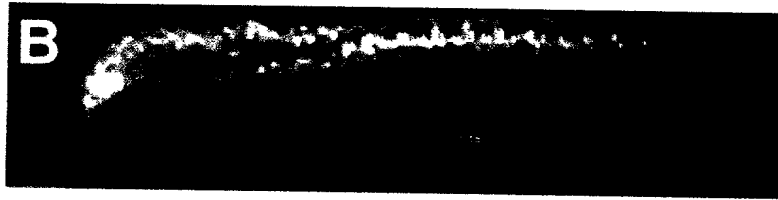


FIG._18C

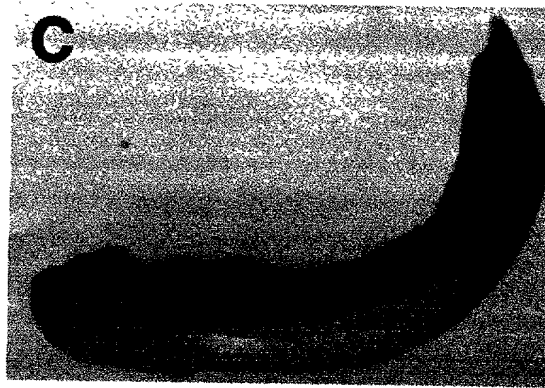


FIG._19A

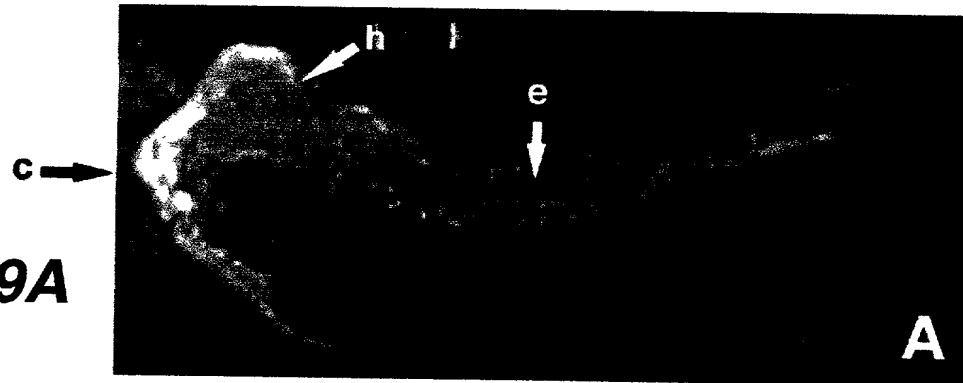
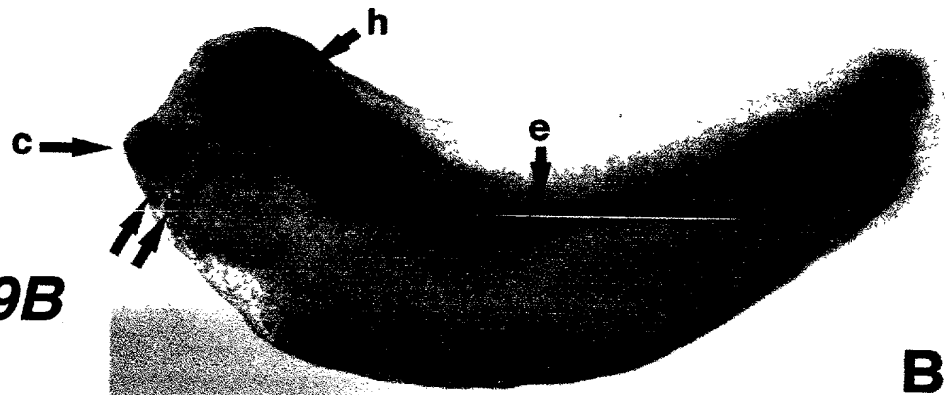


FIG._19B

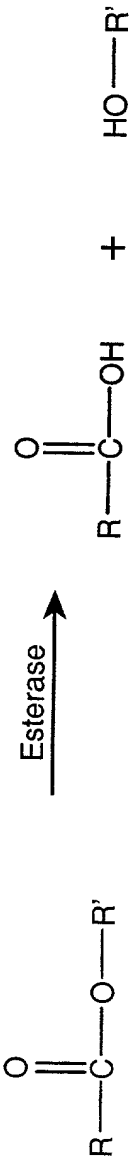


0966513-031302

Esterase Activation

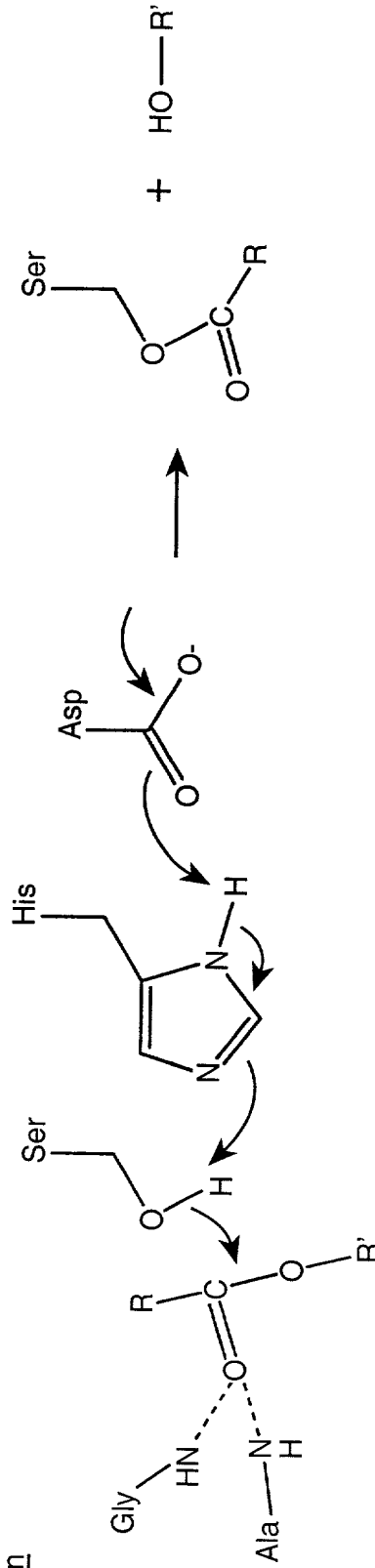
Properties of Carboxylesterases:

1. Efficient Cleavage of Ester Functional Groups



2. Belongs to the Family of Ser-His-Asp Active Site Enzymes (Serine Protease)

Acylation



Deacylation

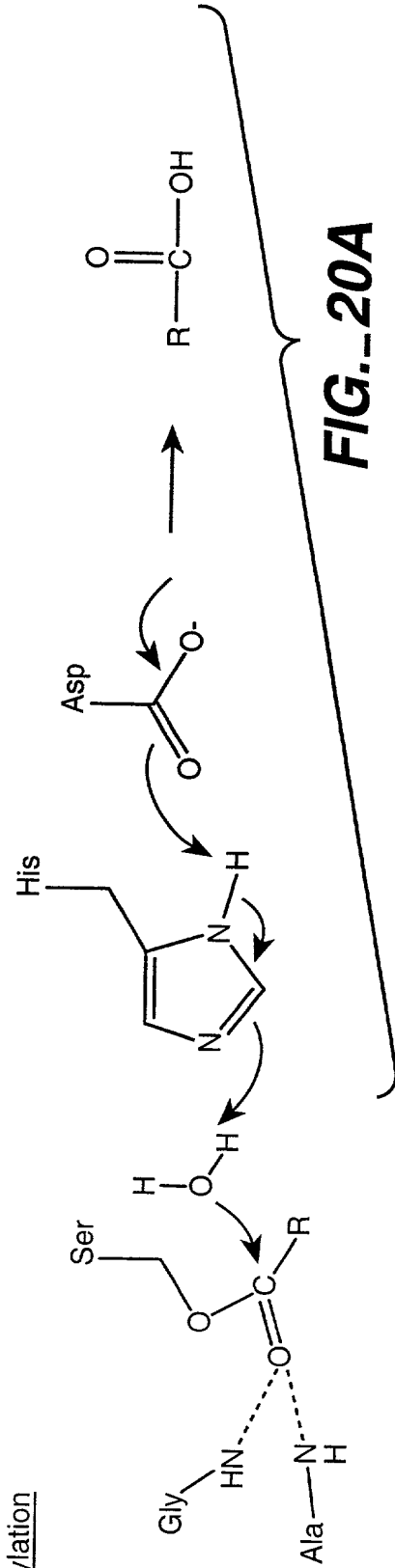
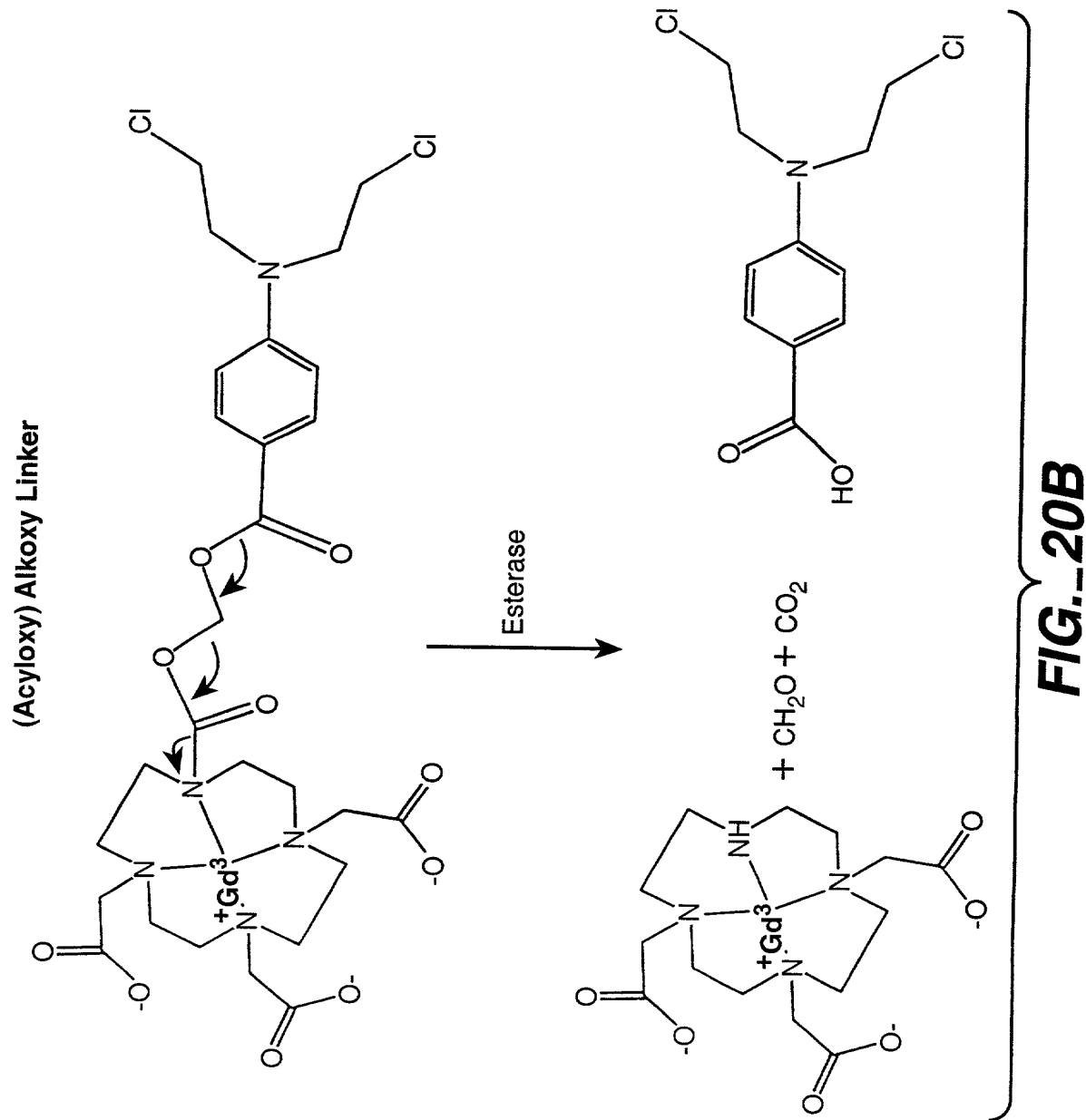
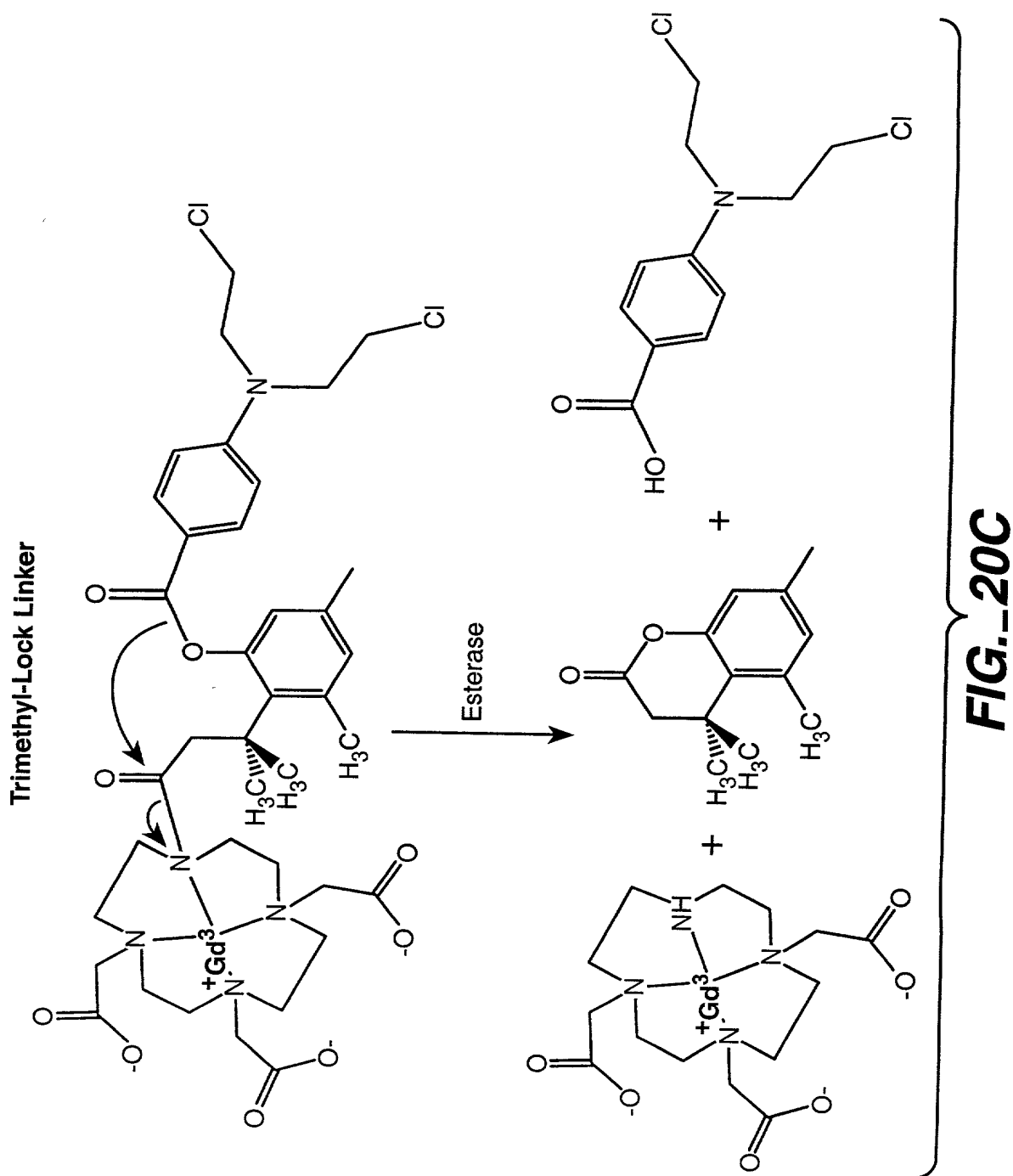


FIG..20A





Ester Linkage II

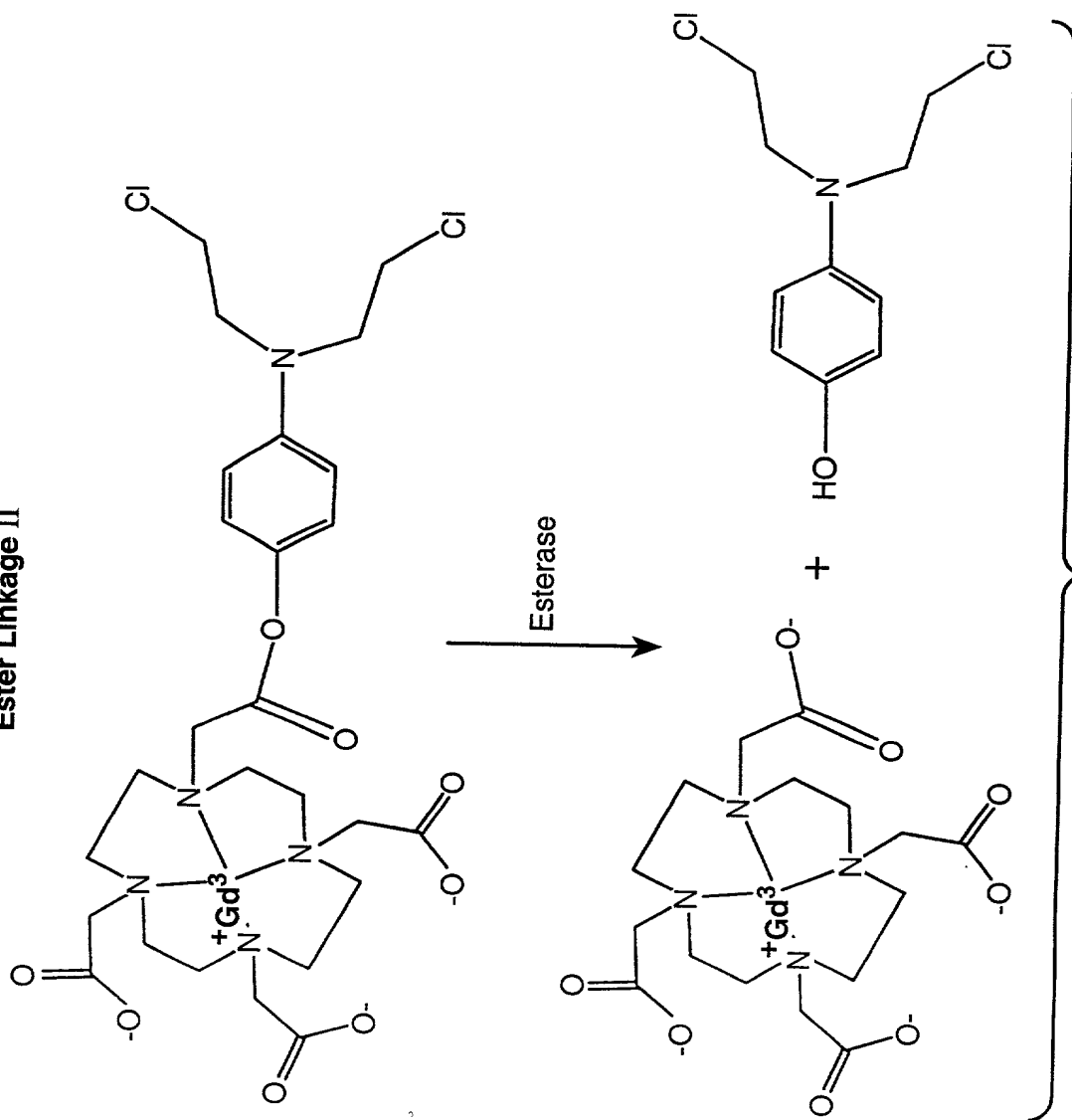
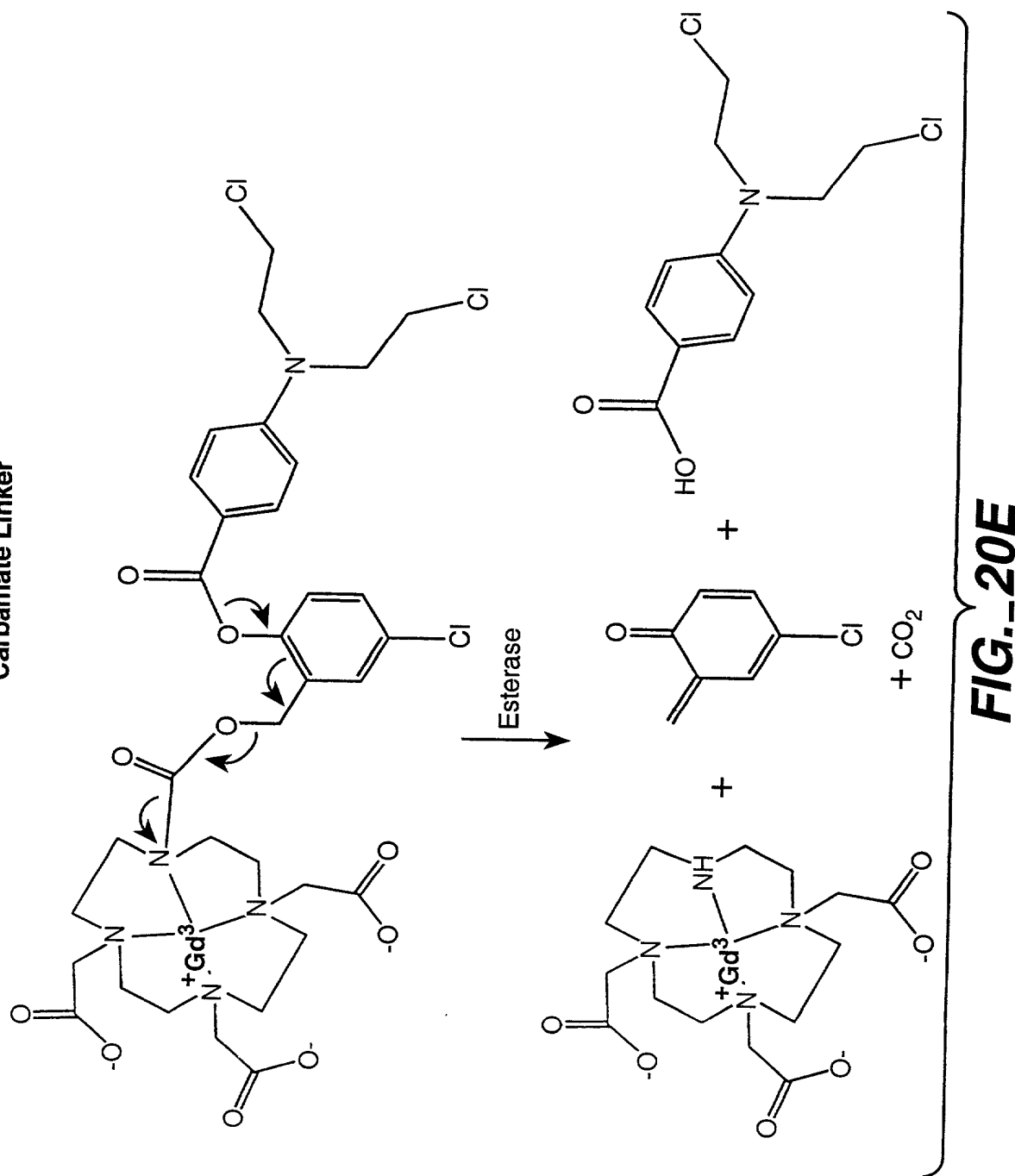


FIG. 20D

Carbamate Linker



Fmoc Chemistry for Synthesis of Linker-peptide Unit

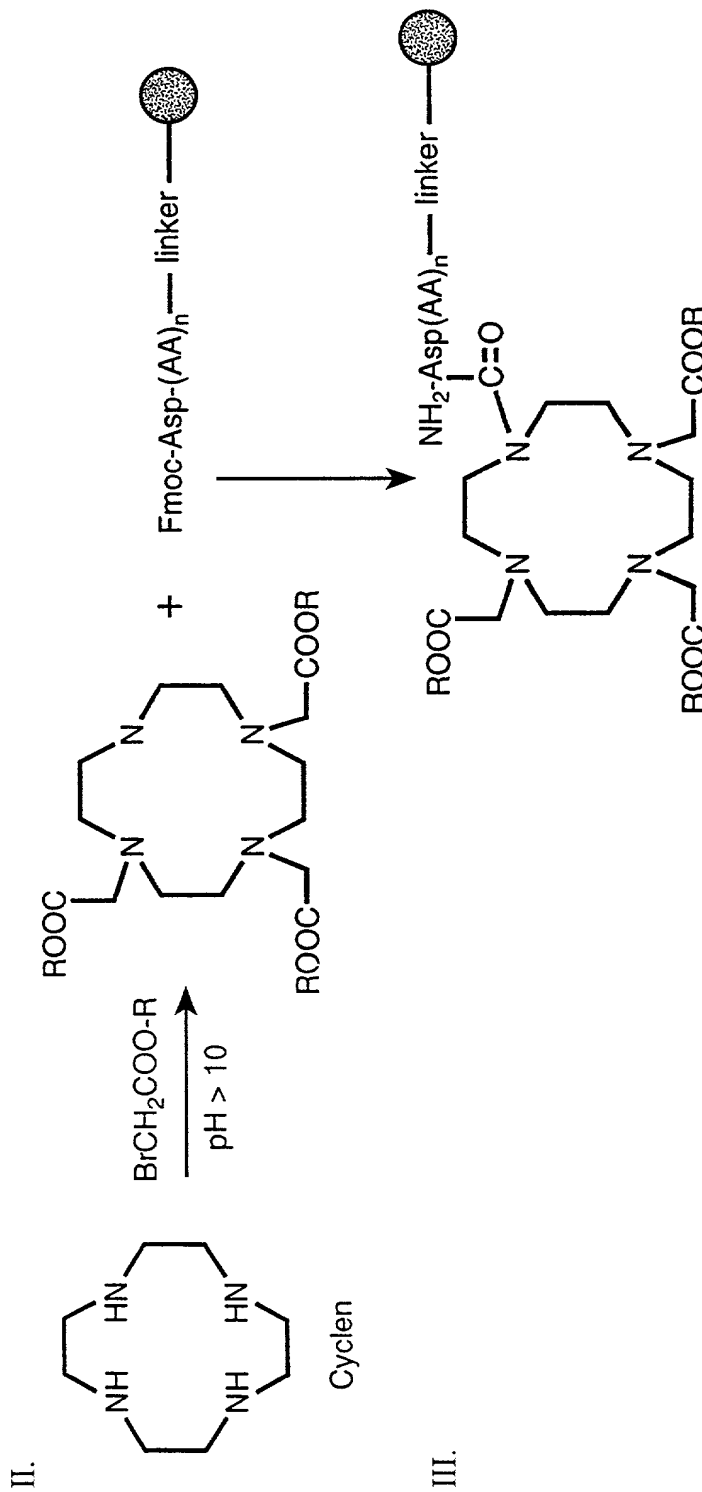
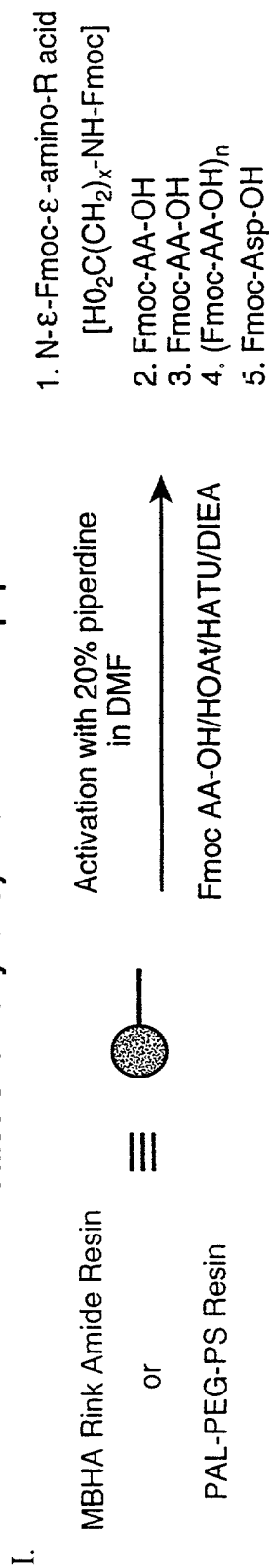


FIG._21

